

WHAT IS CLAIMED IS:

- 1 1. A removable elastic positioning appliance comprising:
2 a shell having at least one orthodontic component, wherein the shell is
3 shaped to receive and reposition teeth from a first orientation to a successive orientation
4 and the component is shaped to engage a flexible band.
- 1 2. An appliance as in claim 1, wherein the component has the form of
2 a hook.
- 1 3. An appliance as in claim 1, wherein the flexible band comprises an
2 elastic band or a ligature.
- 1 4. An appliance as in claim 1, wherein the orthodontic component is
2 mounted on the shell.
- 1 5. An appliance as in claim 1, wherein the orthodontic component is
2 embedded in the shell.
- 1 6. An appliance as in claim 1, wherein the orthodontic component is
2 formed by the shell.
- 1 7. An appliance as in claim 1, wherein the component is shaped so
2 that engagement with the flexible band applies force to the shell when the shell is
3 mounted on the teeth to assist in repositioning of teeth.
- 1 8. A removable elastic positioning system comprising:
2 a shell shaped to receive and reposition teeth from a first orientation to a
3 successive orientation; and
4 at least one orthodontic component shaped to engage a flexible band.
- 1 9. An appliance as in claim 8, wherein the component has the form of
2 a hook.
- 1 10. An appliance as in claim 8, wherein the orthodontic component is
2 mountable on the shell.

1 11. A method of preparing a removable elastic positioning appliance
2 comprising:
3 providing a shell shaped to receive and reposition teeth from a first
4 orientation to a successive orientation;
5 mounting an orthodontic component shaped to engage a flexible band on
6 the shell.

1 12. A removable elastic positioning appliance comprising:
2 a shell shaped to receive and reposition teeth from a first orientation to a
3 successive orientation, wherein the shell has at least one opening to expose a portion of a
4 received tooth.

1 13. An appliance as in claim 12, wherein the at least one opening is
2 disposed to expose a portion of a received tooth upon which an orthodontic component is
3 mountable.

1 14. An appliance as in claim 13, wherein the at least one opening is
2 disposed to expose a portion of a received tooth upon which an orthodontic component
3 comprising a hook is mountable.

1 15. An appliance as in claim 12, wherein the at least one opening is
2 configured to allow an orthodontic component mounted on the exposed portion of the
3 received tooth to protrude through the at least one opening.

1 16. An appliance as in claim 15, wherein the shell is configured to
2 engage a flexible band mounted on the orthodontic component.

1 17. An appliance as in claim 15, wherein the shell is configured to
2 engage the orthodontic component.

1 18. A method of preparing a removable elastic positioning appliance
2 comprising:
3 providing a shell shaped to receive and reposition teeth from a first
4 orientation to a successive orientation;
5 forming at least one opening in the shell which exposes a portion of a
6 received tooth.

1 19. A method as in claim 18, wherein forming the at least one opening
2 comprises forming at least one opening in a location which exposes a portion of a
3 received tooth upon which an orthodontic component is mountable.

1 20. An appliance as in claim 19, wherein forming the at least one
2 opening comprises forming at least one opening in a location which exposes a portion of
3 a received tooth upon which an orthodontic component comprising a hook is mountable.

1 21. A method of using a removeable elastic positioning appliance
2 comprising:
3 providing a shell shaped to receive and reposition teeth from a first
4 orientation to a successive orientation, the shell having at least one opening which
5 exposes a portion of a received tooth;
6 positioning the shell over the teeth so that the portion of the received tooth
7 is exposed by the opening; and
8 mounting an orthodontic component on the portion of the received tooth
9 exposed by the opening.

1 22. A method as in claim 21, further comprising connecting the shell
2 and the orthodontic component with a flexible band.

1 23. A method as in claim 21, wherein the orthodontic component
2 comprises a hook.

1 24. A removable elastic positioning appliance comprising:
2 a shell shaped to receive and reposition teeth from a first orientation to a
3 successive orientation, the shell having at least one protrusion which contacts at least one
4 received tooth to assist in holding the appliance in position.

1 25. An appliance as in claim 24, wherein the at least one protrusion is
2 configured to contact an interdental area.

1 26. An appliance as in claim 24, wherein the at least one protrusion is
2 configured to contact a tooth along at least a portion of its gingival margin.

1 27. An appliance as in claim 24, wherein the at least one protrusion
2 comprises a continuous protrusion which is configured to contact one or more teeth along
3 the gingival margin and interdental areas.

1 28. An appliance as in claim 24, wherein the at least one protrusion is
2 mountable on the appliance.